CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

	REQUISITION NUMBER	DUE DATE	TIME DUE
	2588	11/05/18	noon est
MDOT PROJECT MANAGER Karl Hansen	JOB NUMBER (JN)	CONTROL SECTION (CS) 17034	

DESCRIPTION

Underwater Inspection for the Sault Ste. Marie International Bridge

MDOT PROJECT MANAGER: Check all items to be included in RFP.

WHITE = REQUIRED
** = OPTIONAL

Check the appropriate Tier in the box below

CONSULTANT: Provide only checked items below in proposal When applicable, Best Value scoring criteria is listed separately in the RFP.

☒ **TIER 1 ($50,000 - $150,000)**	☐ **TIER II ($150,000-$1,000,000)**	☐ **TIER III (>$1,000,000)**	
☐	☐	☐	Understanding of Service **
N/A	☐	☐	Innovations
☒	☐	☐	Organizational Chart
☒	☐	☐	Qualifications of Team
N/A	N/A	☐	Quality Assurance/Quality Control **
☐	☐	☐	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation **
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT Forms not counted) Resumes will only be accepted for Best Value Selections.	7 pages (MDOT Forms not counted)	14 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes.** Resumes limited to 2 pages per key staff personnel.

PROPOSAL AND BID SHEET E-MAIL ADDRESS – mdot-rfp-response@michigan.gov

The Consultants will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. Consultants are responsible for ensuring that MDOT receives the proposal on time.

* Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response.

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least five (5) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100J – Consultant Data and Signature Sheet (Required for all firms performing non-prequalified services on this project.)

(These forms are not included in the proposal maximum page count.)

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest (Consultant/Vendor Selection Guidelines for Services Contracts."

RFP SPECIFIC INFORMATION

☐ ENGINEERING SERVICES ☐ BUREAU OF TRANSPORTATION PLANNING ☒ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☒ NO ☐ YES DATED _____ THROUGH _____

☒ **Prequalified Services** – See the attached Scope of Services for required Prequalification Classifications.	☐ **Non-Prequalified Services** – If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, is on file with MDOT's Office of Commission Audits This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed. **Form 5100J is required with proposal for all firms performing non-prequalified services on this project.**

☒ **Qualification Based Selection** - Use Consultant/Vendor Selection Guidelines.

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualification Based Selection / Low Bid** – Use Consultant/Vendor Selection Guidelines. See Bid Sheet instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted. The vendor that has met established qualification threshold and with the lowest bid will be selected.

☐ **Best Value** – Use Consultant/Vendor Selection Guidelines, See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required – no proposal required.)

BID SHEET INSTRUCTIONS

Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) with the proposal, to the email address: mdot-rfp-response@michigan.gov. Failure to comply with this procedure may result in your bid being rejected from consideration.

PARTNERSHIP CHARTER AGREEMENT

MDOT and ACEC created a Partnership Charter Agreement which establishes guidelines to assist MDOT and Consultants in successful partnering. Both the Consultant and MDOT Project Manager are reminded to review the ACEC-MDOTPartnership ,Charter Agreement and are asked to follow all communications, issues resolution and other procedures and guidance's contained therein.

PROPOSAL REQUIREMENTS

Proposals must be submitted for this project electronically. Proposal submittal requirements are listed in *PART IV – INSTRUCTION FOR SUBMITTING PROPOSALS* at the following link Selection Guidelines for Service Contracts

FINANCIAL REQUIREMENTS FOR NON-PREQUALIFIED VENDORS
Financial Requirements for Non-Prequalified Consultants/Vendors

E-VERIFY REQUIREMENTS
E-Verify is an Internet based system that allows an employer, using information reported on an employee's Form I-9, Employment Eligibility Verification, to determine the eligibility of that employee to work in the United States. There is no charge to employers to use E-Verify. The E-Verify system is operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration. E-Verify is available in Spanish.

The State of Michigan is requiring, under Public Act 200 of 2012, Section 381, that as a condition of each contract or subcontract for construction, maintenance, or engineering services that the pre-qualified contractor or subcontractor agree to use the E-Verify system to verify that all persons hired during the contract term by the contractor or subcontractor are legally present and authorized to work in the United States.

Information on registration for and use of the E-Verify program can be obtained via the Internet at the DHS Web site: http://www.dhs.gov/E-Verify.

The documentation supporting the usage of the E-Verify system must be maintained by each consultant and be made available to MDOT upon request.

It is the responsibility of the prime consultant to include the E-Verify requirement documented in this NOTIFICATION in all tiers of subcontracts.

DIGITAL SIGNATURE OF CONTRACTS
On **January 4, 2018**, Contract Services Division implemented the use of CoSign as the exclusive software for digitally signing all consultant contracts and consultant contract related documents. All other digital signing methods are no longer accepted.

Prior to using CoSign, all external partners must apply for a free digital signature user account by submitting a MDOT Digital Signature Certificate Request Form.

MDOT INSURANCE UPDATED 3.9.17

At a minimum, the insurance types and limits identified below, may be required from the selected consultant, prior to contract award.

Required Limits	Additional Requirements
Commercial General Liability Insurance	
Minimal Limits: $1,000,000 Each Occurrence Limit $1,000,000 Personal & Advertising Injury Limit $2,000,000 General Aggregate Limit $2,000,000 Products/Completed Operations	Consultants must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds
Automobile Liability Insurance	
Minimal Limits: $1,000,000 Per Occurrence	
Workers' Compensation Insurance	
Minimal Limits: Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
Minimal Limits: $500,000 Each Accident $500,000 Each Employee by Disease $500,000 Aggregate Disease	
Professional Liability (Errors and Omissions) Insurance	
Minimal Limits: $1,000,000 Per Claim	

The Insurer shall provide at least thirty (30) days written notice of cancellation. The Prime Consultant will be responsible to verify subconsultant(s) compliance with MDOT's insurance requirements.

MICHIGAN DEPARTMENT OF TRANSPORTATION

SCOPE OF SERVICE
FOR
SPECIALTY SERVICES
Underwater Bridge Inspection

CONTROL SECTION: 17034

JOB NUMBER: N/A

PROJECT LOCATION: Sault Ste. Marie International Bridge

DESCRIPTION OF WORK:
The scope of work includes performing a tactile/visual underwater inspection of 15 piers and their submerged appurtenances. A detailed examination of the underwater surface of the piers and their footings shall be made to locate the existence of cracks, spalling and failure of concrete and steel. These inspections shall be performed in accordance with the requirements of the National Bridge Inspection Standards (NBIS) and the applicable sections of the Ontario Structure Inspection Manual (OSIM). The inspection procedures shall be in accordance with the latest edition of the AASHTO Manual for Condition Evaluation of Bridges.

These inspections shall consist of sufficient observations and/ or measurements to determine the physical and functional conditions of the underwater portions of the bridge and fully satisfy the National Bridge Inspection Standards and the Ontario Structure Inspection Standards.

ANTICIPATED START DATE: April 22, 2019

ANTICIPATED COMPLETION DATE: December 31, 2019

PRIMARY PREQUALIFICATION CLASSIFICATION:
Design-Bridges: Safety Inspection-Underwater

SECONDARY PREQUALIFICATION CLASSIFICATION:
N/A

DBE REQUIREMENT: N/A

PROJECT MANAGER

Karl Hansen, P.E.
International Bridge Administration
934 Bridge Plaza
Sault Ste. Marie, MI 49783
Phone: (906) 635-5255 ext. 135
Fax: (906) 635-0540
E-Mail: HansenK@michigan.gov

The consultant shall contact the Project manager prior to beginning any work on this project.

GENERAL INFORMATION

The International Bridge Administration (IBA) is seeking a proposal from a prequalified inspection firm (CONSULTANT) to perform in-service safety inspections of submerged substructure elements on the International Bridge in accordance with National Bridge Inspection Standards (NBIS), and the applicable sections of the Ontario Structure Inspection Manual (OSIM). The inspection of the piers is termed "diver inspection".

In accordance with the National Bridge Inspection Standards (NBIS) and the applicable sections of the Ontario Structure Inspection Manual (OSIM), a bridge that has submerged substructure elements that cannot be checked by wading, must be inspected by a qualified diver on a periodic basis.

The deliverable will be the "Inspection Report." This report will have several components as noted below and will be reviewed and attested to be accurate and complete under seal of a Professional Engineer licensed in the State of Michigan (P.E.), and a Professional Engineer licensed in the Province of Ontario (P.Eng.).

CONSULTANT RESPONSIBILITIES:

The CONSULTANT shall furnish all services and labor necessary to conduct and complete the Underwater Bridge Inspection Services described herein. The CONSULTANT shall also furnish all materials, equipment, supplies, and incidentals necessary to perform the Services. The Services shall be performed to the satisfaction of the Department and IBA consistent with applicable professional standards.

The CONSULTANT'S principal contact with the IBA shall be through the designated IBA Project Manager.

The CONSULTANT shall comply with all applicable Federal, Provincial, and State laws, rules, and regulations.

DURATION & SCHEDULE

A. Schedule of Dates and Milestones

The CONSULTANT must develop a schedule to perform the inspections and submit it to the IBA PM for approval. The CONSULTANT must be prepared to begin work within three working days of receiving a Notice to Proceed (NTP).

Timing and communication are critical in determining the schedule. Several key stakeholders and factors must be taken into account:

- Operation of the US Army Corps of Engineers (COE) outflow compensation gates. The gates control flow into the original river rapids, and optimal timing for inspecting the ten piers in the rapids is when outflow is minimized. The COE has indicated that flows are minimal in late April and early May; however, increased outflow in mid-May may or may not be suitable. It is the CONSULTANT's responsibility to coordinate schedule, access, portaging, etc. with the COE in a timely and proactive manner. The IBA will assist in providing contact points at the COE.

- Ice floes in the upper St. Mary's River may make dive boat access to the rapids difficult. Again, it is the CONSULTANT's responsibility to coordinate schedule, access, portaging, etc. with the COE in a timely and proactive manner.

- The remaining five piers are in the Brookfield Power Canal in Ontario. Brookfield may have canal maintenance and down time scheduled. It is the CONSULTANT's responsibility to coordinate schedule, access, etc. with Brookfield in a timely and proactive manner. The IBA will assist in providing contact points at Brookfield.

Based upon the preceding factors, the CONSULTANT should give consideration to the potential for more than one mobilization when pricing the work. No extensions of time or additional compensation will be considered due to lack of proactivity on the part of the CONSULTANT, or failure to complete inspections in accordance with stakeholder operational schedules. Scheduling and contact with stakeholders must commence immediately upon NTP.

Any changes to the schedule must be submitted to the IBA PM for approval prior to the change. Failure to progress in alignment with the schedule will be considered as failing to meet the terms of the contract and may result in the cancellation of the contract.

Key Milestone Dates:

Brookfield Power Canal Shutdown Date:	TBD
Draft Inspection Report Due:	August 2, 2019
Final Inspection Report Due:	September 6, 2019

B. Meetings

The Diving Inspector and the Engineer must attend a pre-inspection meeting, and a project closeout meeting. All meetings will be at the International Bridge Administration building at a time mutually agreed upon. It is also anticipated that several informal progress meetings or phone updates will occur during the contract duration.

1. Pre-inspection Meeting

The purpose of the Pre-inspection meeting is to cover the operational aspects of the inspection process with the IBA PM and/or other MDOT personnel, deliver and review the inspection schedule, exchange telephone numbers, reinforce safety issues, and answer any questions that the inspector or engineer may have.

It is anticipated that this meeting will be in April of 2019.

2. **Project Closeout Meeting**

The purpose of the Project Closeout meeting is to submit the Inspection Reports and review them with the IBA PM. The IBA PM will also provide feedback to the CONSULTANT on the overall performance of the contract.

It is anticipated that this meeting will be in May of 2019.

WESTERN HEMISPHERE TRAVEL INITIATIVE (WHTI):

Effective June 1, 2009 WHTI was implemented. It is the CONSULTANT'S responsibility to ensure all team members possess an approved travel document.

STAFF QUALIFICATION REQUIREMENTS

The CONSULTANT must provide personnel with qualifications that meet or exceed the requirements as outlined by federal (U.S. and Canada), provincial and state diving standards including the "diving regulations" of the U.S. Federal Occupational Safety and Health Administration regulations and the Ontario Occupational Health and Safety Act. One individual may act in different capacities at different times; however, they must meet the qualifications of both jobs. At least one member of the team shall be a Qualified Team Leader per Federal Register 650.309 and shall be at the bridge at all times during each inspection.

A. DIVER INSPECTION TEAM COMPOSITION

The bridge will be inspected by a diving team composed of Diver(s) and Tender(s). For open water dives, the team should be composed of two (2) divers and two (2) tenders. All divers and inspection team leaders must meet the qualification requirements of the NBIS and OSIM.

B. INSPECTION ENGINEER QUALIFICATIONS

The Inspection Engineer must have 3 years of experience in the inspection of underwater structures and must have knowledge of NBIS and OSIM inspection requirements and FHWA publications for foundation scour (HEC No's. 18 & 20).

The Inspection Engineer must be on site during the diving operations. The inspection engineer will be the author of the inspection report and must be a qualified team leader who has completed the NHI course # 130055A, Safety Inspection of In-Service Bridges or a similar FHWA-approved two-week comprehensive bridge inspection class.

C. DIVER QUALIFICATIONS

The Diver Inspector(s) must be certified by a national recognized authority, such as the Professional Association of Diving Instructors (PADI) or Association of Commercial Diving Educators (ACDE) in the type of diving equipment that will be used for the inspections. They must be in sound physical condition and have proof of a medical physical examination within the last twelve (12) months on file with the company.

The Diver Inspector(s) must have a minimum of three (3) years of structural inspection experience with bridge and like structures **AND** recently completed the NHI course #130055A, Safety Inspection of In-Service Bridges or a similar FHWA-approved two-week comprehensive bridge inspection class and NHI course #130091, Underwater Bridge Inspection. This experience must be actual performance of the work and not supervision or ancillary activities.

The Diver Inspector(s) must possess good verbal communication skills and be able to write and sketch the observations found during the inspection.

D. DIVER TENDER QUALIFICATIONS

The Diver Tender(s) must have two (2) years of experience in assisting diver operations. This must be actual performance of the work and not supervision or ancillary activities.

INSPECTION AND REPORT REQUIREMENTS

Underwater Inspection:

The Scope of Work includes performing an underwater inspection of the International Bridge's submersed piers. The inspection shall be performed in accordance with current requirements of the National Bridge Inspection Standards (NBIS) and the Ontario Structural Inspection Manual.

In accordance with 23 U.S.C. 144(d)(2), commencing on October 1, 2014, State and Federal agencies that have not already done so are to begin collecting element level data as each NHS highway bridge is field inspected in accordance with 23 CFR 650 Subpart C.

Inspection results are to be compiled and recorded in accordance with AASHTO's Manual for Bridge Element Inspection, 1st Edition, with 2015 Interim Revisions, available at the following URL:

https://bookstore.transportation.org/collection_detail.aspx?ID=129

For additional information on what is required to perform an element level inspection refer to MDOT's Michigan Bridge Element Inspection Manual at the following URL:
http://www.michigan.gov/documents/mdot/MiBEIM_2015-03-05_Final_486188_7.pdf

The work associated with this project is broken into two phases: Site inspection and data gathering, and the completion of the report writing and communication of the information to IBA. Both phases must be completed for successful completion of the project. The proposal shall include a description of the equipment intended to be used on this project.

A. SITE INSPECTION

DIVER INSPECTION

Inspect fifteen International Bridge piers in order to determine water depth and any scour activity. The dimensions of and approximate water depth at each pier is shown schematically in the accompanying profile drawings. The piers to be surveyed are numbers 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 41, 42, 43, 44, and 45.

The CONSULTANT shall notify the IBA PM of each diving operation to be carried out and shall obtain permission for each diving operation. The Diver Inspection Team will go to the bridge site, enter the water with underwater breathing equipment, and complete a visual/tactile inspection (Level I as defined in the Bridge Inspector's Reference Manual) for the condition of the structure under the waters surface and just above it. This inspection will be done according to NBIS and applicable sections of the OSIM and will include a topographical examination of the streambed in and around the substructure elements and probing along the mud line for support. All underwater work on piers will be regulated by the applicable federal (Canada and U.S.), provincial and state diving standards, including the "Diving Regulations" of the Ontario Occupational and Safety Act and the U.S. Federal Occupational Health and Safety Act and the U.S. Federal Occupational Safety and Health Administration regulations. The Diver Inspection Team will record their observations in narrative form as well as with sketches and pictures as is appropriate. Detailed descriptions and drawings shall be made of all defects located, including dimensions and locations of defects. The Team will also record a digital video of each pier. The video will be annotated and/or have an accompanying log detailing the video contents so the location of the videotaping will be clear to the viewer.

Problems which could affect the continued safe operation of the bridge must be brought to the attention of the IBA PM before the Diver Inspection Team leaves the site.

MECHANICAL TESTS

Mechanical tests shall be made with a chipping hammer on all piers where cracks, spalling, or failure of concrete surfaces is suspected. These tests shall consist of mechanical hammering of the concrete with a sharp edge of a hammer and evaluation of dept of penetration. The size and location of affected surface shall also be provided.

B. REPORTS

The consultant will provide four (4) copies of the draft written report and four (4) hard copies of the final written report on the inspection with descriptions, recommendations, drawings, data, photographs, and findings. The names of all inspectors shall be included in the report. All information shall be labeled for reference in a manner approved by the IBA. The inspection report and each drawing shall bear the signature and seal of a professional engineer licensed in the State of Michigan and one professional engineer licensed in the Province of Ontario. One (1) electronic copy of the final written inspection report is to be provided.

VIDEO AND AUDIO RECORDS

The CONSULTANT shall provide three (3) copies of the digital video record to supplement and clarify the information, or to show typical defects found during the underwater inspection.

The video record shall not be used by the CONSULTANT as a substitute for drawings which are necessary to describe any and all defects found during the underwater inspection.

The video record shall be taken with a color underwater camera of excellent quality by personnel experienced with underwater photography and underwater lighting requirements in order to obtain clear images acceptable to the IBA. Controlling such as zooming and lighting shall be possible from the surface.

The CONSULTANT shall supply all the television, monitoring and recording equipment.

In addition to the video record, simultaneous audio record shall also be provided on the video with a complete verbal description, indicating the pier number or name, exact location, size and type of defects being photographed.

The recorded video image and audit transcripts of the defective area shall be visible and audible on a television monitor during photography and shall be of acceptable quality to the IBA.

The CONSULTANT shall take additional video images and audio transcripts of defects already photographed and verbally described, if in the opinion of the IBA, the tape playback of monitor lacks sufficient clarity to discern the image or verbal description of the defects, at no additional cost to the IBA.

The tape does not need editing but will be catalogued, indicating the pier number or name, exact location and type of defects with a short written description.

DIVER INSPECTION REPORT

The Diver Inspection Team will take the information and data obtained in the field and assemble it into a report for delivery to the IBA. The report will contain a written description of the conditions found at the site, above and below water as may be applicable, and contain a statement as to the condition of the substructure elements (i.e. good, fair, poor), identify all deleterious conditions and an estimate of the magnitude of each, and provide photographs and sketches of the substructure element and the effected areas. The conditions shall be reported in sufficient detail to make it possible to check and report significant changes during future inspections and to estimate the extent of any necessary repair. A recommended NBIS rating number must also be provided for the Substructure Elements (Item 60), Channel and Channel Protection (Item 61), Pier Protection (Item 111), and Scour Critical Bridges (Item 113). These recommended ratings will be only for the portion of the substructure below the water and will be given to the routine inspector for consideration. *The rating for Item 113 will be based on the "observed" scour condition; scour calculations are **not** part of this contract.*

The consultant team leader will also be responsible for entering the inspection findings into MDOT's MiBRIDGE bridge management inspection system.

The report shall be cross-referenced and the narrative section shall include reference to drawings, photographs, videos, etc., that illustrate conditions being discussed. The recommendations, in particular, shall include cross-referencing to narrative, drawings and photographs. The report will be reviewed, signed, and sealed by a Professional Engineer registered in the State of Michigan and the Province of Ontario for compliance with the NBIS and applicable sections of the Ontario Structure Inspection Manual and for the thoroughness of the inspection.

The CONSULTANT will submit to the IBA PM a sample report page listing the standard observations/measurements for a review of the content and format. This format will be used for all the piers being inspected.

ACCESS TO FLOATING INSTALLATION

Access to the CONSULTANT's floating installation, as applicable, shall be made readily available to the IBA.

EQUIPMENT

The CONSULTANT will be responsible for providing all equipment necessary to complete the project in an efficient and safe manner. The CONSULTANT will be responsible for selecting the type of dive equipment (SCUBA and surface-supplied air) that will best be suited for the work at a given site and is required to have all of the typical forms of commercial diving equipment available for the project. A boat or marine vessel used for the project must have room to accommodate the IBA PM.

The CONSULTANT must provide all of the necessary inspection tools for completion of the inspection. Typical items such as cameras, hammers, lights, message boards, and scrapers can be expected.

SAFETY

The IBA requires safe working operations. The waterways at the bridge site are heavily traveled by pleasure boat traffic. All operations of the consultant must be conducted in a manner that will not interrupt commercial traffic or be a threat to pleasure boaters. All inspection activities will be conducted during daylight hours and the dive boat operator must be constantly vigilant, and prepared to take action, should conditions threaten the diving operation. The consultant shall not work in hazardous weather conditions. The CONSULTANT must provide all necessary personal safety equipment for each employee at the work site. The diving consultant firm must be trained in all the applicable state, provincial, and federal regulations as well as industry practices for the work being performed. It is not the responsibility of the IBA to verify the CONSULTANT'S safety practices, however the IBA project manager has the authority to have any individual removed who is found to be working unsafely.

All equipment must be in sound working order, meeting applicable inspections for safe operation. Lost time due to equipment failures will not be paid for.

The CONSULTANT will be responsible for coordination with United States and Canadian Coast Guards for diving operations located in designated Navigable Waters and will be responsible for coordination with the U.S. Army Corps of Engineers (for compensating gate shutdown) and with Brookfield Power Company (for power canal shutdown).

Some, but not all, of the regulations that can be expected to apply are the latest revisions of:

1. Michigan Occupational Safety and Health Administration regulations (MIOSHA) Part 79 & Part 504, Diving Operations.
2. Occupational Safety and Health Administration regulations (OSHA) Subpart N, Commercial Diving Standards.
3. Marine Occupational Safety and Health Standards (USCG Regulations), 46 CFR 1 97.200-197.488 plus Appendix A, Subchapter V.
4. Consensus Standards for Commercial Diving Operations, Association of Diving Contractors, latest edition (ADC Standards)

REFERENCE MATERIALS

The CONSULTANT is to have the following reference material and be familiar with their contents.

1. National Bridge Inspection Standards (NBIS).

2. Ontario Structure Inspection Manual (OSIM).

3. AASHTO Manual for Condition Evaluation of Bridges, 1994, and subsequent interim changes or the most recent version.

4. FHWA Publications:
   a. "Bridge Inspector's Reference Manual", October, 2002, FHWA NHI 03-001.
   b. "Culvert Inspection Manual", Report No. FHWA-IP-86-2.

c. "Inspection of Fracture Critical Bridge Members", Report No. FHWA-IP-86-26.
d. "Recording and Coding Guide for the Structure Inventory and Appraisal of Nation's Bridges", Report No. FHWA-PD-96-001, December, 95.
e. "Underwater Inspection of Bridges", Report No. FHWA-DP-80, November, 1989.

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee. The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418. MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-

13_420286_7.pdf?20130509081848. MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.

EXHIBIT 1

INTERNATIONAL BRIDGE PROTECTIVE MEASURES

The following provisions address the intention to safeguard the International Bridge.

It is expected the CONSULTANT will disclose in writing the provisions described below to its SUBCONSULTANT(S) and all prospective employees before the CONSULTANT presents any individual employee to the IBA as their personnel authorized to work on this Michigan Department of Transportation (MDOT) CONTRACT.

The CONSULTANT and all personnel performing the work will be expected to fully comply with all provisions.

A CONFIDENTIALITY PROVISIONS

The CONSULTANT agrees that all information related to any work performed under this CONTRACT authorization, including, but not limited to, copies of plans, reports and/or other documents used or generated related to the work performed, is confidential. Any information provided by the International Bridge Administration (IBA) or obtained by the CONSULTANT or its SUBCONSULTANT(S) relating to the work to be performed shall not be reproduced or distributed to any individuals without the express written approval of the International Bridge Administration Engineer (ENGINEER). The CONSULTANT agrees to maintain all information related to this project as confidential except any information that is required to be disclosed by court order.

Structural information concerning the International Bridge is exempt from disclosure under the Michigan Freedom of Information Act (FOIA) Act 442 of 1976, (15.2 MCL). Section 13 of the Act specifically exempts from disclosure information relating to bridges or documents related to the bridges as they are "public works" and "[r]ecords or information of measures designed to protect the security or safety of persons or property." Other exemptions may be applicable as well.

All original plans and/or documents related to any and all project work done under this authorization that is hereafter part of this Contract and all copies thereof shall be returned to the IBA when the projects are completed. The CONSULTANT agrees that all original plans and documents related to the projects and all copies thereof belong to the IBA. The CONSULTANT further agrees that it will not make copies of any plans or documents related to the projects without the prior written consent of the ENGINEER. All documents prepared by the CONSULTANT including tracings, drawings, estimates, specifications, field notes, investigative studies, and other relevant documents, are the property of the IBA and will not be furnished to any other party without the prior written permission of the ENGINEER.

The CONSULTANT agrees that if the CONSULTANT or its SUBCONSULTANT(S) violates the confidentiality provisions of this authorization the CONSULTANT will be financially responsible for consequential damages, including, but not limited to, the costs associated with assessing the potential threat and providing additional security systems to the International Bridge.

A violation of these CONFIDENTIALITY PROVISIONS shall be considered a breach of this authorization and this Contract. MDOT may, in its sole discretion, terminate this authorization and the Contract for any breach of these CONFIDENTIALITY PROVISIONS.

B. EQUIPMENT INSPECTION PROVISIONS

The ENGINEER may refuse to allow the CONSULTANT or its SUBCONSULTANT to use equipment brought to the International Bridge due to security concerns. Equipment brought to the International Bridge for use by the CONSULTANT or its SUBCONSULTANT(S) will be made available and subject to inspection by the ENGINEER or a duly designated inspection agent prior to its use or at any time while onsite.

A violation of this EQUIPMENT INSPECTION PROVISION shall be considered a breach of this authorization and this Contract. MDOT may, in its sole discretion, terminate this authorization and the Contract if the EQUIPMENT INSPECTION PROVISIONS are not met by the CONSULTANT or its SUBCONSULTANT(S).

C PERSONNEL SPECIAL SECURITY PROVISIONS

The CONSULTANT agrees to initially submit a complete list to the ENGINEER at the pre-inspection meeting that identifies all personnel and their SUBCONSULTANT(S) personnel that will have access to the bridge documents discussed above and any information that is produced as a result of the work that they will perform. The list shall include, at a minimum, each identified person's full name, driver's license or identification number, social security number, place and date of birth. A current photograph from a valid identification document must also be provided for each person identified on the list. The list with accompanied photograph shall be updated if personnel are added or dropped from the workforce.

The CONSULTANT shall also provide, at or before the pre-inspection meeting, signed disclosure forms, criminal background checks of all personnel that they indicate will perform work at any time.

Requests for such additional background checks may be initiated by the ENGINEER at any time. The CONSULTANT expressly recognizes and agrees to cooperate, if the ENGINEER, in its sole discretion, desires to conduct an investigation concerning the eligibility of any personnel identified to perform work on this project. Such investigations may include Michigan State Police Background checks (ICHAT OR LEIN) and may include the National Crime Information Center (NCIC) Finger Prints. The personnel that are identified and listed may be required to complete and submit an RI-8 Fingerprint Card for the NCIC Finger Print Checks. Any personnel, if requested, that refuses or fails to submit an RI-8 Fingerprint Card for the NCIC Finger Print Checks must be replaced with personnel acceptable to the ENGINEER.

Only personnel with satisfactory criminal background checks that are acceptable to the ENGINEER will be authorized to perform work under this contract authorization.
The identity of all personnel working at the bridge will be subject to verification by the ENGINEER or a duly designated verification agent at the start of each workday. Off-site personnel are subject to verification by the ENGINEER or a duly designated verification agent at any time. Personnel that are not verified will not be permitted access to the bridge or the documents discussed above.

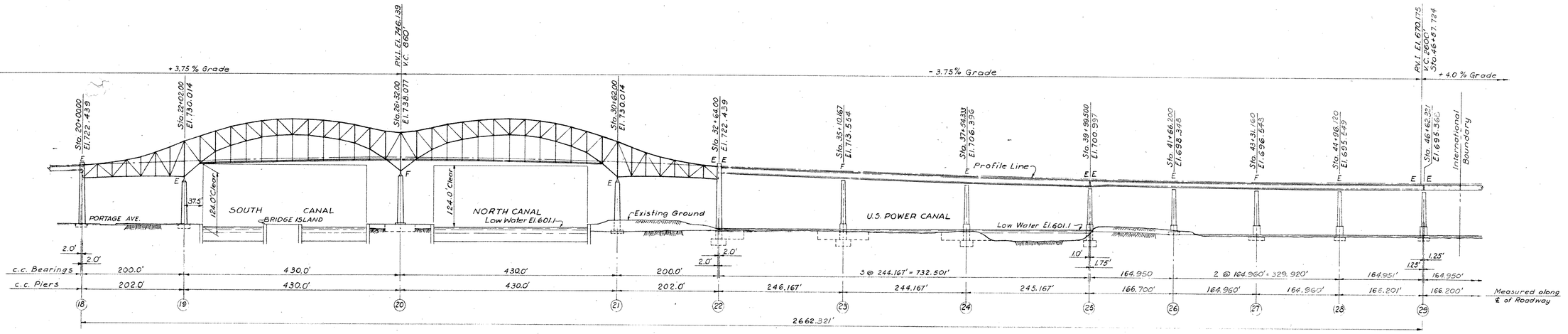
The CONSULTANT remains fully responsible for providing employees that will be able to obtain and maintain acceptable security checks and achieve verification that satisfy the IBA. The CONSULTANT shall not be entitled to extensions of time while suitable replacements are obtained.

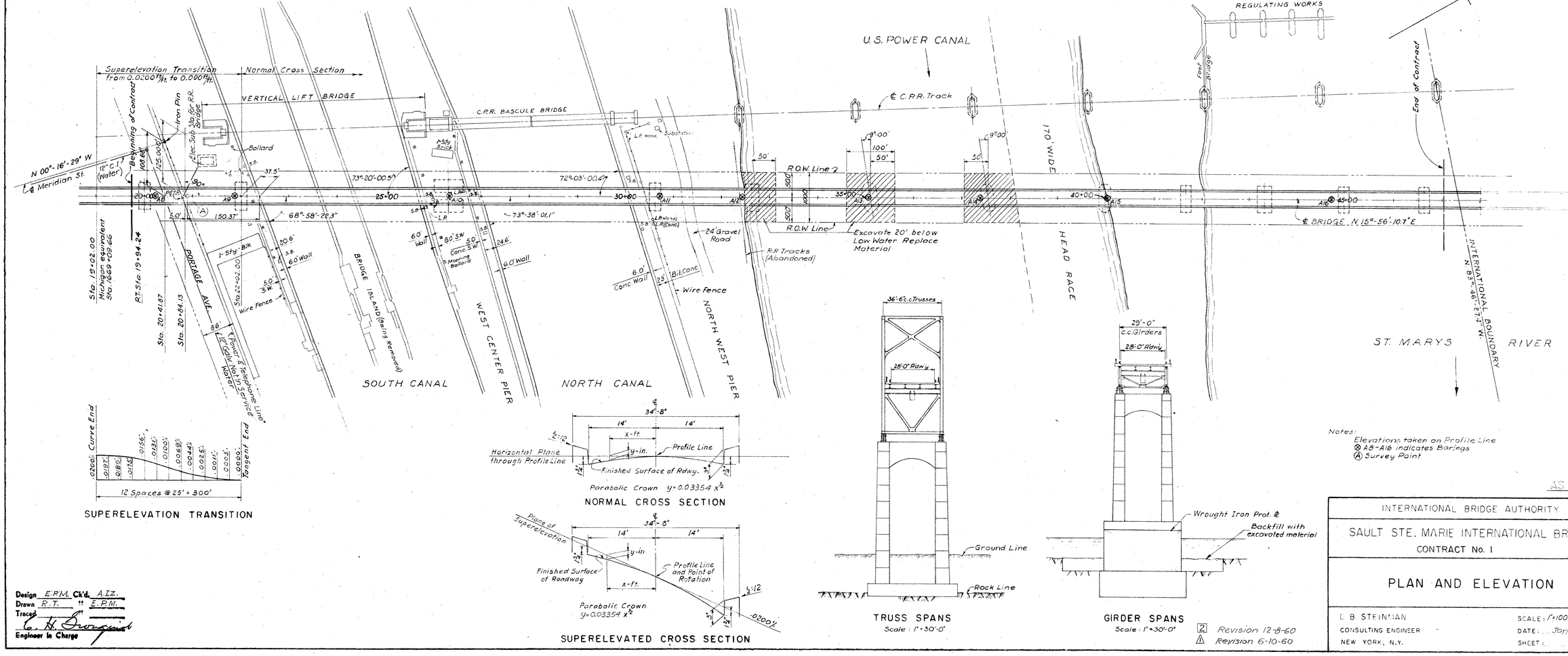
A violation of these PERSONNEL SPECIAL SECURITY PROVISIONS shall be considered a breach of this authorization and this Contract. MDOT may, in its sole discretion, terminate this authorization and the Contract for any breach of these PERSONNEL SPECIAL SECURITY PROVISIONS.

D. STATE OF MICHIGAN'S IT POLICY PROVISION

All personnel employed by the CONSULTANT and its SUBCONSULTANT(S) must agree to and comply with the State of Michigan's IT resource acceptable use policy if accepted as personnel authorized to work on this Contract.

A violation of these STATE OF MICHIGAN'S IT POLICY PROVISION shall be considered a breach of this authorization and this Contract. MDOT may, in its sole discretion, terminate this authorization and the Contract for any breach of these STATE OF MICHIGAN'S IT POLICY PROVISION.





Notes:
Elevations taken on Profile Line
⊗ A8-A16 indicates Borings
Ⓐ Survey Point

AS-BUILT

2 Revision 12-8-60
1 Revision 6-10-60

Design E.P.M. Ck'd. A.I.Z.
Drawn R.T. " E.P.M.
Traced
Engineer in Charge

INTERNATIONAL BRIDGE AUTHORITY

SAULT STE. MARIE INTERNATIONAL BRIDGE
CONTRACT No. 1

PLAN AND ELEVATION

D. B. STEINMAN
CONSULTING ENGINEER
NEW YORK, N.Y.

SCALE: 1"=100'-0", as Shown
DATE: Jan. 25, 1960
SHEET: 4

Pier No.	Station
30	48 + 28.521
31	49 + 93.481
32	51 + 58.441
33	53 + 24.641
34	54 + 90.841
35	56 + 55.801

PIER No	A	B	C	D	E	F
30	681.674	9.94	70.674	7.47	1'-3⅝"	1'-3⅝"
32	685.391	10.10	74.391	7.55	1'-4⅝"	1'-4⅝"
33	689.759	10.28	78.759	7.64	1'-4 3/16"	1'-5 11/16"
34	692.421	10.39	81.421	7.70	—	—

NOTES:

1. For General Notes see sheet No. 2
2. For Strut Reinforcement, see sheet No. 7
3. All Vertical Bars are #11. All Ties are #4 @ 12"
4. All Reinforcement is Sym. about ℄ Shown
5. All Col. Sections show Col. Steel above Section only
6. Dowels from Pedestal match Bottom Col. Section
7. For Anchor Bolt Detail see sheet #12

AS BUILT

REVISION	BY	CK'D	DATE
4	AS BUILT		
3	H.H.C.		12-8-60
1	D.W.	J.P.	10-27-60

Design J.R. Ck'd A.A.F.
Drawn F.C. " J.P.
Traced
Engineer in Charge

INTERNATIONAL BRIDGE AUTHORITY

SAULT STE. MARIE INTERNATIONAL BRIDGE

CONTRACT No. 3

PIERS 30, 31, 32, 33, 34 & 35

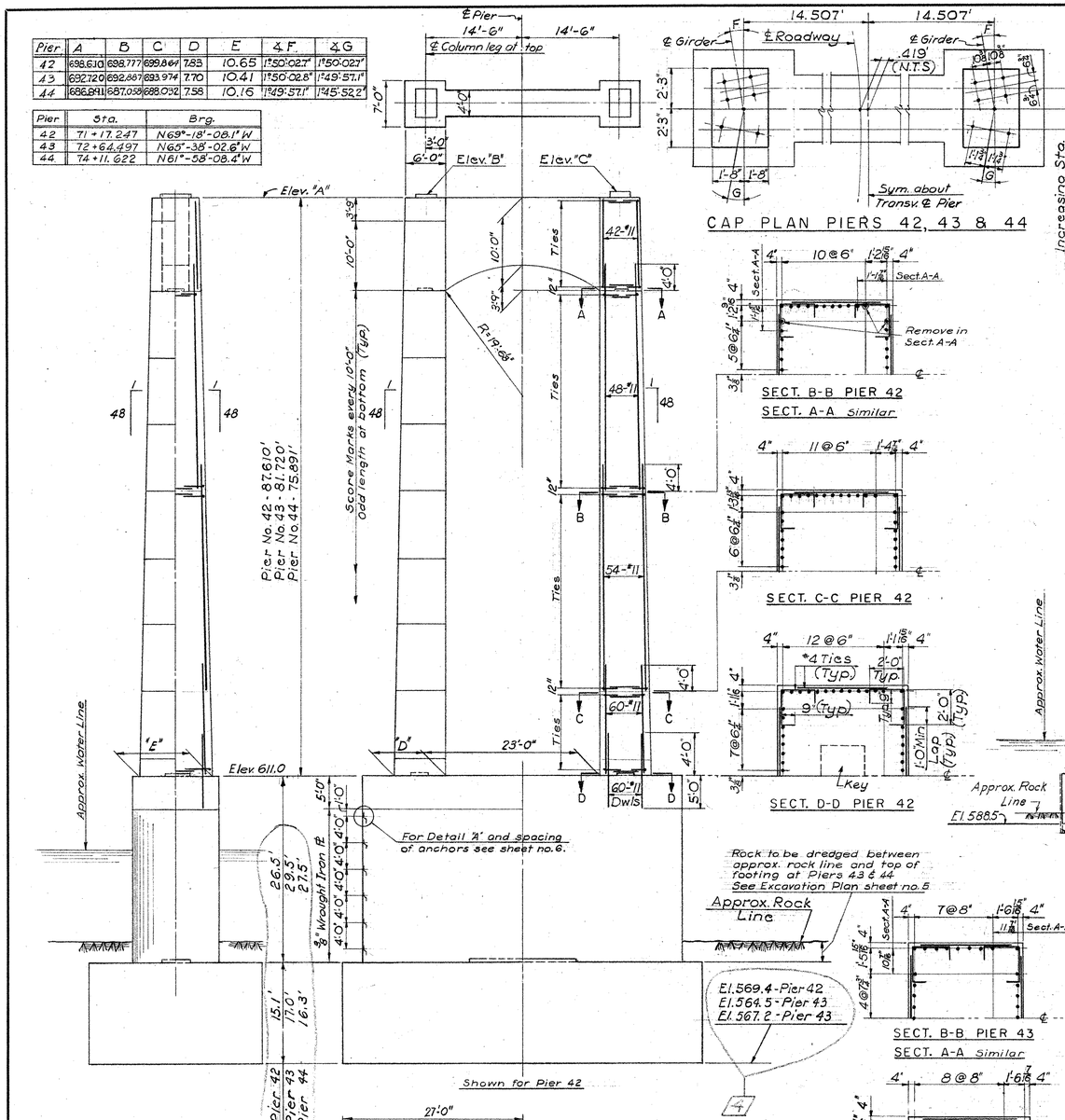
D. B. STEINMAN
CONSULTING ENGINEER
NEW YORK, N. Y.

SCALE: ¼"=1'-0" & as noted
DATE: Jan. 25, 1960
SHEET: 6

1991 Approved Tracing Vellum 0677

Pier	A	B	C	D	E	4 F.	4 G
42	698.610	698.777	699.864	7.85	10.65	1°50'02.7"	1°50'02.7"
43	692.720	692.867	693.974	7.70	10.41	1°50'02.8"	1°49'57.1"
44	686.841	687.059	688.032	7.58	10.16	1°49'57.1"	1°45'52.2"

Pier	Sta.	Brg.
42	71 + 17.247	N69°-18'-08.1" W
43	72 + 64.497	N65°-38'-02.6" W
44	74 + 11.622	N61°-58'-08.4" W



PIERS — 42, 43 & 44

Scale: 1" = 10'-0"

CAP PLAN PIERS 42, 43 & 44

SECT. B-B PIER 42

SECT. A-A *Similar*

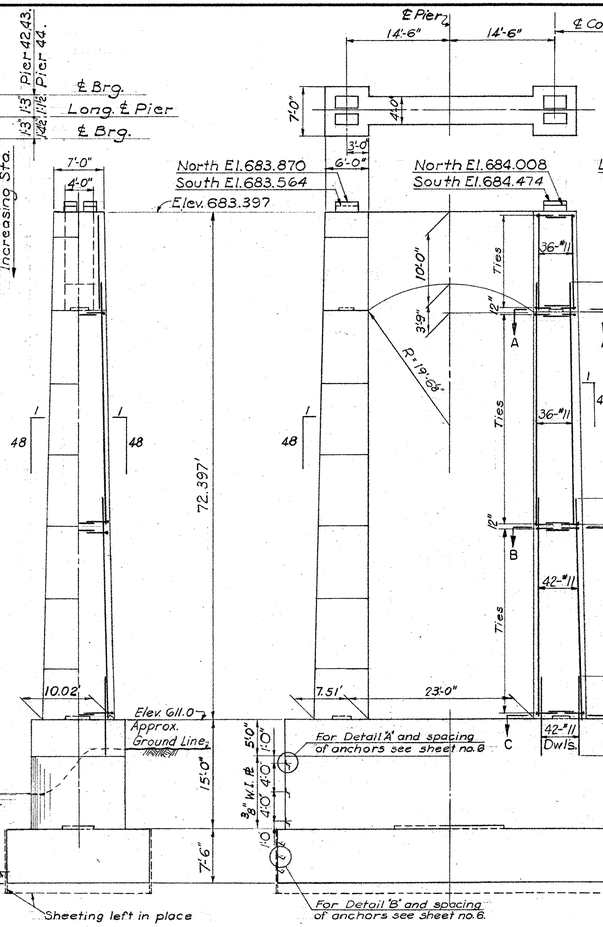
SECT. C-C PIER 42

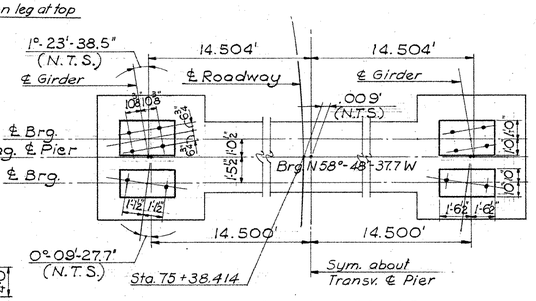
SECT. D-D PIER 42

Increasing Sta.

℄ Brg.
Long. ℄ Pier
℄ Brg.

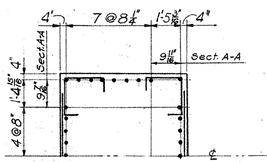
Pier 42.43.
Pier 44.





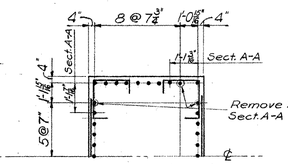
CAP PLAN PIER 45

Increasing Sta.



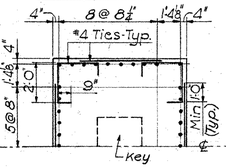
SECT. B-B PIER 45

SECT. A-A *Similar*



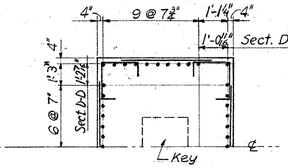
SECT. B-B PIER 44

SECT. A-A *Similar*



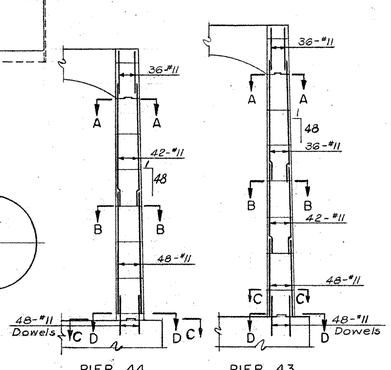
Key

SECT. C-C PIER 45



Key

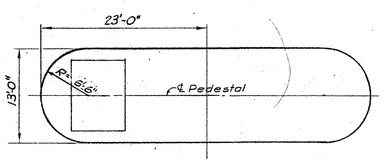
SECT. CC & DD
PIER 44

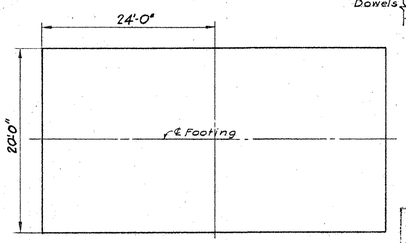


PIER 44 PIER 43

PARTIAL ELEVATION

Scale: 1" = 20'-0"





PIER No. 45

Scale: 1" = 10'-0"

SECT. B-B PIER 43

SECT. A-A *Similar*

SECT. C-C PIER 43

SECT. D-D PIER 43

NOTES

1. For General Notes, see sheet No. 2.
2. For Strut Reinforcement, see sheet No. 7.
3. For Pedestal Reinforcement and Footing Dowels see Sh # 6
4. Reinf. is symmetrical about ℄ shown
5. For Anchor Bolt Detail, see sheet No. 12.
6. All column sections show column steel above section only.
7. For Scoring Detail, see sheet No. 6.
8. For Pad Reinforcement, see sheet No. 7.
9. Dowels from Pedestal match bottom column sections.
10. All vertical Bars are #11
    All Ties are #4 @ 1'-0"

AS BUILT

REVISION	BY	CK'D	DATE
4	AS BUILT		
3	H.H.C.		12-8-60
2	J.P.	D.W.	11-17-60

Design J.P. Ck'd A.A.F.
Drawn B.C.S. " J.P.
Traced " "
Engineer in Charge

INTERNATIONAL BRIDGE AUTHORITY

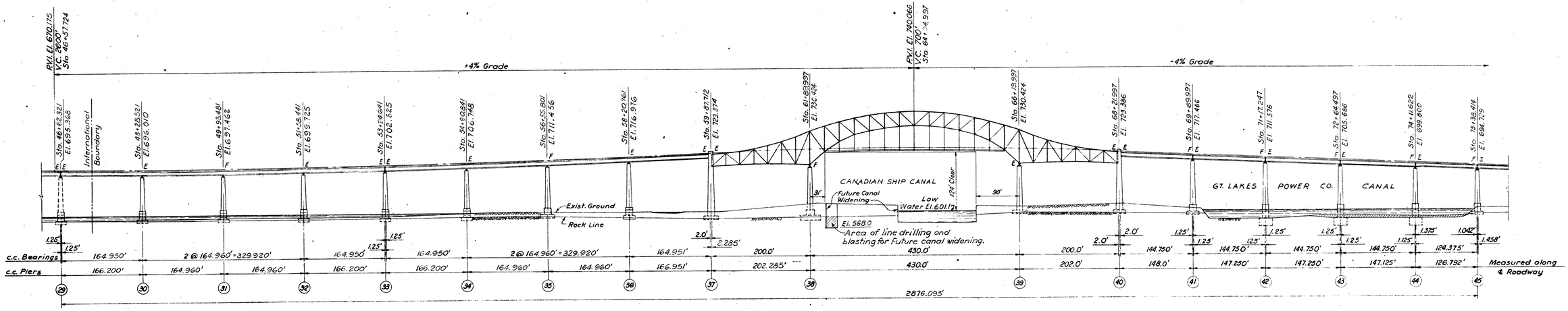
SAULT STE. MARIE INTERNATIONAL BRIDGE

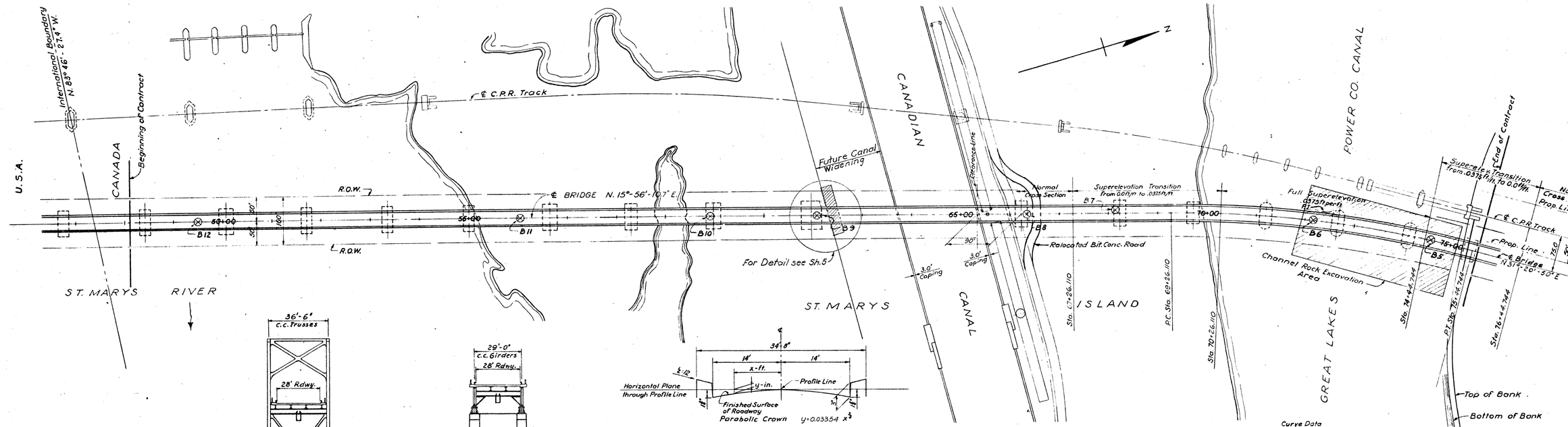
CONTRACT No. 3

PIERS 42, 43, 44 AND 45

D. B. STEINMAN
CONSULTING ENGINEER
NEW YORK, N. Y.

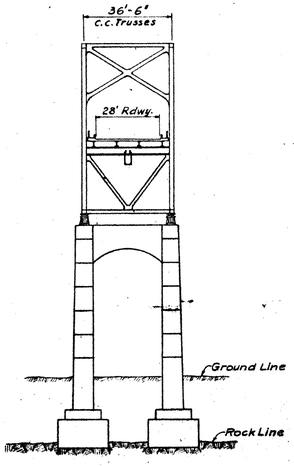
SCALE: 1"=1'-0" Unless Shown
DATE: Jan. 25, 1960
SHEET: 8



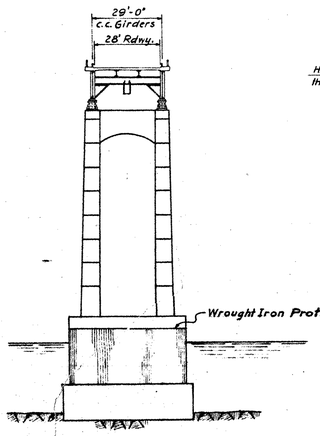


Curve Data
R = 2300'
Δ = 15°24'39.3"
L = 618.634'
T = 311.195'

Notes:
Elevations taken on Profile line.
⊗ B5 - B12 indicates borings.

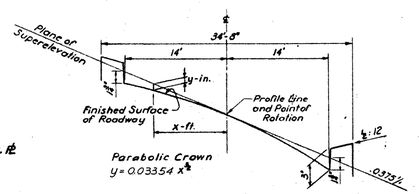


TRUSS SPANS
Scale: 1" = 30'

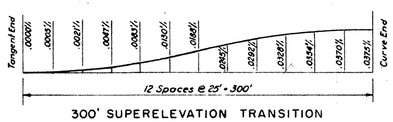


GIRDER SPANS
Scale: 1" = 30'

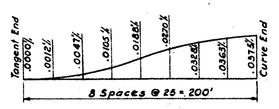
NORMAL CROSS SECTION



FULLY SUPERELEVATED CROSS SECTION



300' SUPERELEVATION TRANSITION



200' SUPERELEVATION TRANSITION

③ Revision Dec. 8, 1960.
⚠ REVISION June 3, 1960

AS BUILT

INTERNATIONAL BRIDGE AUTHORITY

SAULT STE. MARIE INTERNATIONAL BRIDGE
CONTRACT No. 3

PLAN AND ELEVATION

D. B. STEINMAN
CONSULTING ENGINEER
NEW YORK, N.Y.

SCALE: 1" = 100' & as shown
DATE: Jan. 25, 1960
SHEET: 4

Design E.P.M. Ck'd. P.D.
Drawn R.T. & E.L. " A.I.Z.
Traced " "
E. H. Lungwitz
Engineer in Charge